EP 2 021 191 B1

FIG. 1

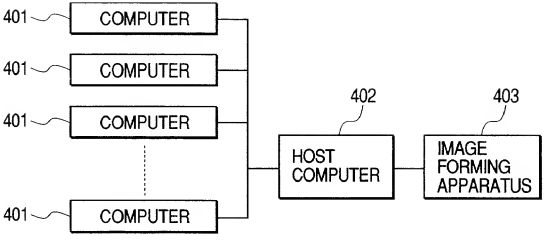


FIG. 2

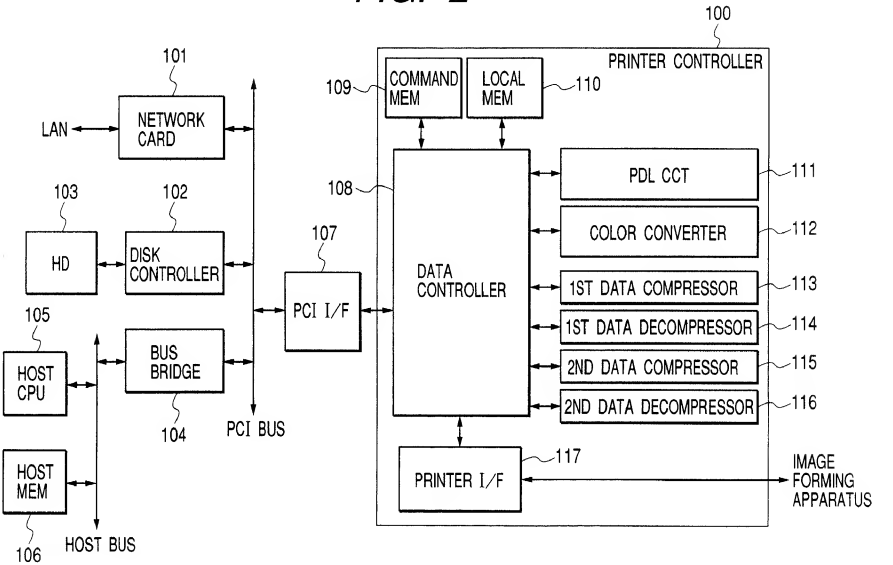
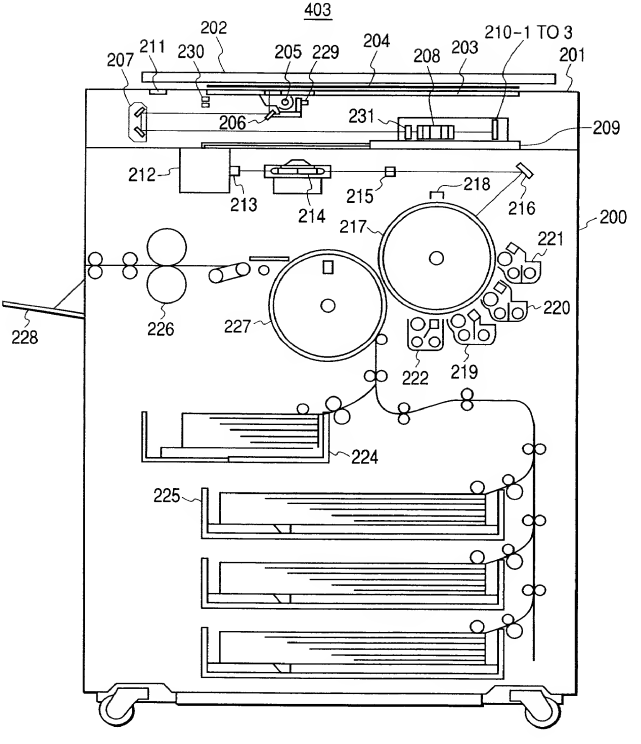

100
PRINTER CONTROLLER
101
NETWORK CARD
LAN
109
COMMAND MEM
LOCAL MEM
110
103
HD
102
DISK CONTROLLER
107
PCI I/F
108
DATA CONTROLLER
PDL CCT
111
COLOR CONVERTER
112
1ST DATA COMPRESSOR
113
1ST DATA DECOMPRESSOR
114
2ND DATA COMPRESSOR
115
2ND DATA DECOMPRESSOR
116
105
HOST CPU
BUS BRIDGE
104
PCI BUS
HOST MEM
106
HOST BUS
PRINTER I/F
117
IMAGE FORMING APPARATUS

FIG. 3

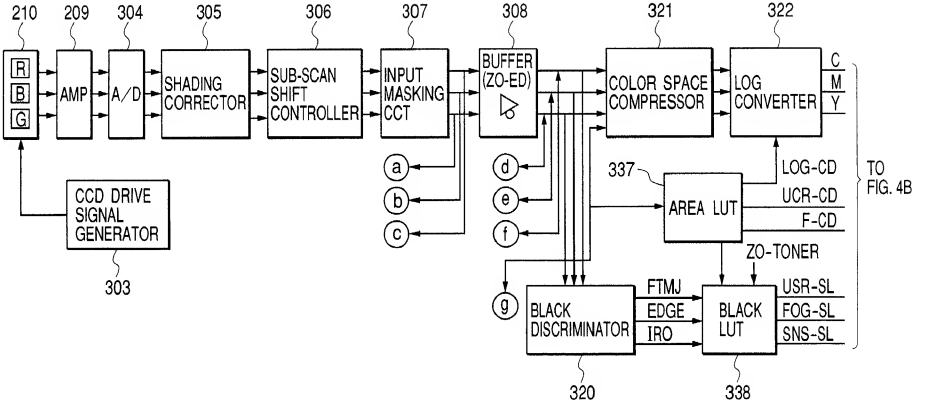

403
202
211
230
207
205
229
204
208
203
210-1 TO 3
201
206
231
209
212
213
214
215
218
216
217
200
221
220
228
226
227
222
219
224
225

TOSHIBA SME85760

FIG. 4

FIG. 4A	FIG. 4B

FIG. 4A



TOETTO' 9hE8SL60

FIG. 4B

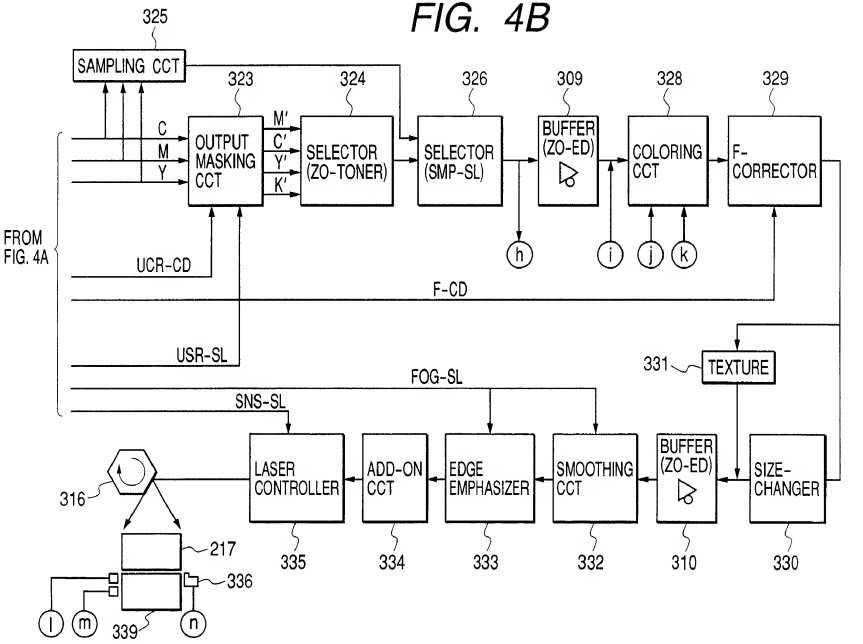


FIG. 5

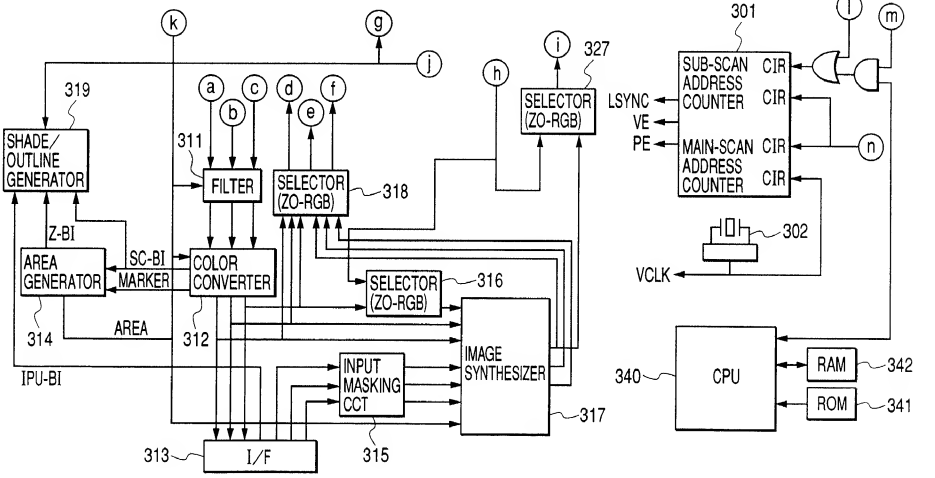

k
g
j
h
i
327
301
l
m
319
a
b
c
d
e
f
SHADE/
OUTLINE
GENERATOR
311
FILTER
SELECTOR
(ZO-RGB)
318
SELECTOR
(ZO-RGB)
SUB-SCAN
ADDRESS
COUNTER
CIR
LSYNC
VE
PE
MAIN-SCAN
ADDRESS
COUNTER
CIR
n
Z-BI
SC-BI
MARKER
AREA
GENERATOR
COLOR
CONVERTER
SELECTOR
(ZO-RGB)
316
302
VCLK
314
AREA
312
IMAGE
SYNTHESIZER
IPU-BI
INPUT
MASKING
CCT
340
CPU
RAM
342
ROM
341
317
313
I/F
315

FIG. 6

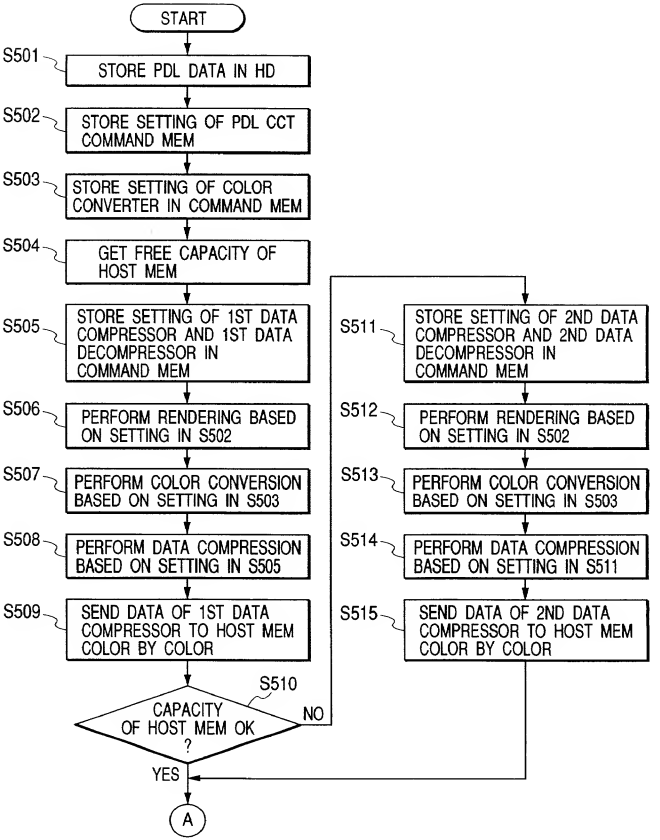
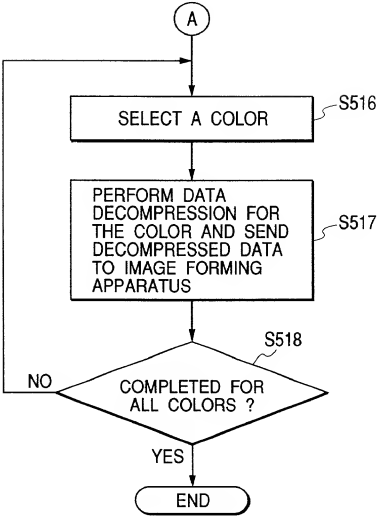
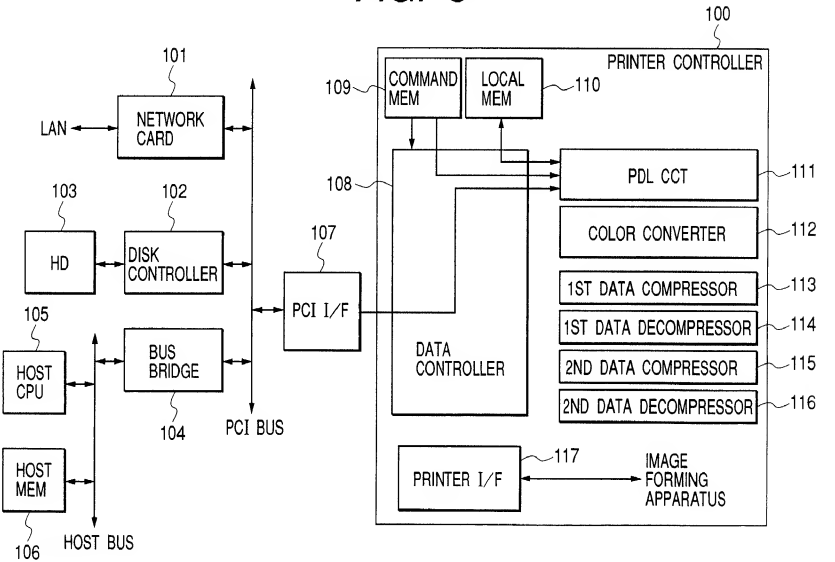

START
S501
STORE PDL DATA IN HD
S502
STORE SETTING OF PDL CCT COMMAND MEM
S503
STORE SETTING OF COLOR CONVERTER IN COMMAND MEM
S504
GET FREE CAPACITY OF HOST MEM
S505
STORE SETTING OF 1ST DATA COMPRESSOR AND 1ST DATA DECOMPRESSOR IN COMMAND MEM
S506
PERFORM RENDERING BASED ON SETTING IN S502
S507
PERFORM COLOR CONVERSION BASED ON SETTING IN S503
S508
PERFORM DATA COMPRESSION BASED ON SETTING IN S505
S509
SEND DATA OF 1ST DATA COMPRESSOR TO HOST MEM COLOR BY COLOR
S510
CAPACITY OF HOST MEM OK ?
NO
YES
S511
STORE SETTING OF 2ND DATA COMPRESSOR AND 2ND DATA DECOMPRESSOR IN COMMAND MEM
S512
PERFORM RENDERING BASED ON SETTING IN S502
S513
PERFORM COLOR CONVERSION BASED ON SETTING IN S503
S514
PERFORM DATA COMPRESSION BASED ON SETTING IN S511
S515
SEND DATA OF 2ND DATA COMPRESSOR TO HOST MEM COLOR BY COLOR
A

FIG. 7


A
SELECT A COLOR
S516
PERFORM DATA DECOMPRESSION FOR THE COLOR AND SEND DECOMPRESSED DATA TO IMAGE FORMING APPARATUS
S517
S518
NO
COMPLETED FOR ALL COLORS ?
YES
END

T02FT0' 9HC85Z60

FIG. 8



TOSHIBA 09285760

FIG. 9

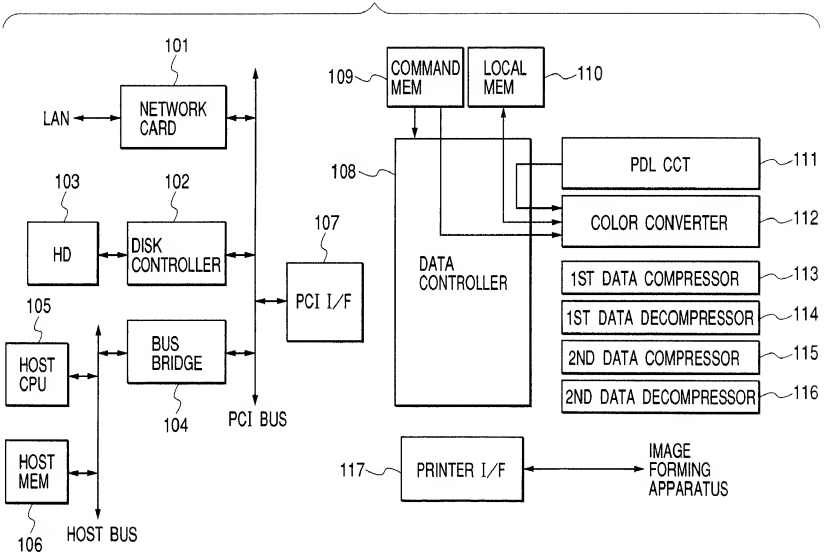
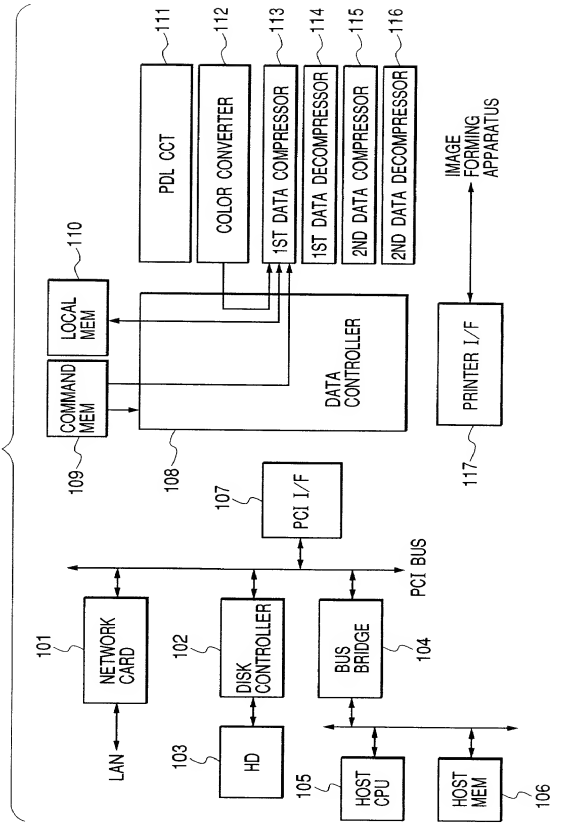
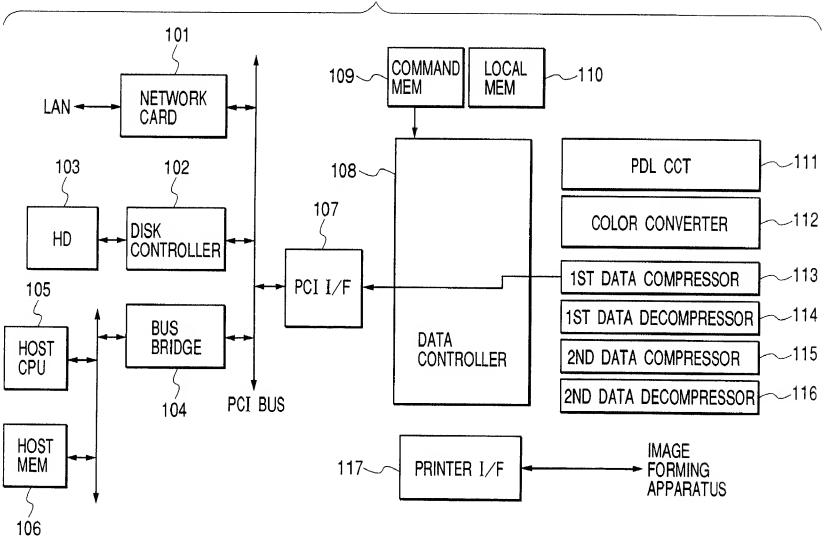


FIG. 10


LAN
NETWORK CARD
101
HD
103
DISK CONTROLLER
102
HOST CPU
105
BUS BRIDGE
104
HOST MEM
106
PCI BUS
PCI I/F
107
COMMAND MEM
109
LOCAL MEM
110
DATA CONTROLLER
108
PRINTER I/F
117
IMAGE FORMING APPARATUS
PDL CCT
111
COLOR CONVERTER
112
1ST DATA COMPRESSOR
113
1ST DATA DECOMPRESSOR
114
2ND DATA COMPRESSOR
115
2ND DATA DECOMPRESSOR
116

TOZITO' 9NZ89Z60

FIG. 11



TD2TTO' 9HC85260

FIG. 12

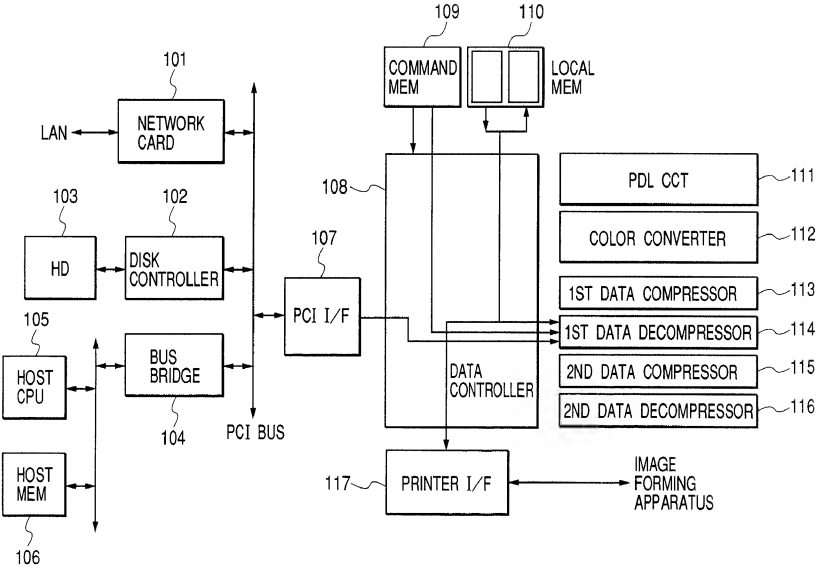


FIG. 13

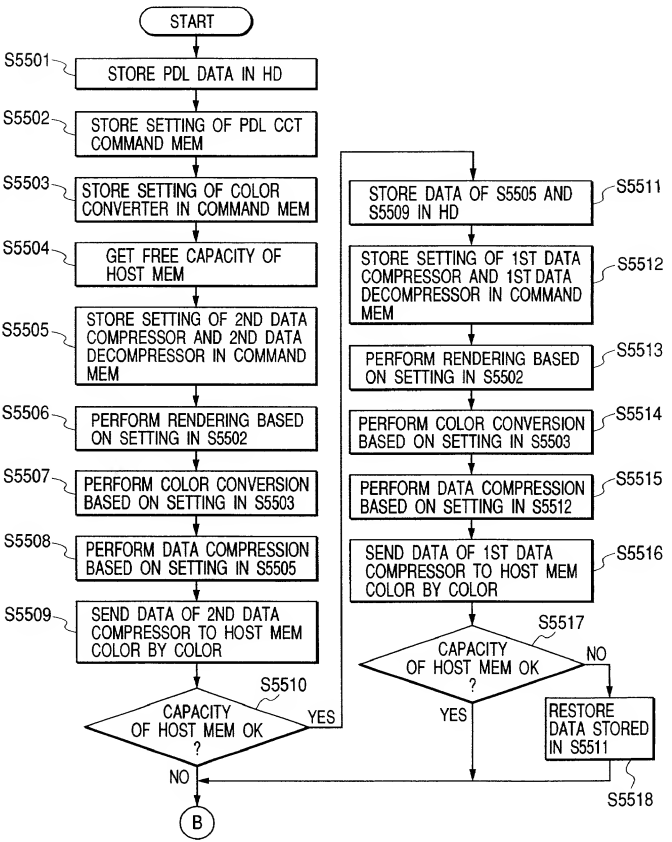

START
S5501
STORE PDL DATA IN HD
S5502
STORE SETTING OF PDL CCT COMMAND MEM
S5503
STORE SETTING OF COLOR CONVERTER IN COMMAND MEM
S5504
GET FREE CAPACITY OF HOST MEM
S5505
STORE SETTING OF 2ND DATA COMPRESSOR AND 2ND DATA DECOMPRESSOR IN COMMAND MEM
S5506
PERFORM RENDERING BASED ON SETTING IN S5502
S5507
PERFORM COLOR CONVERSION BASED ON SETTING IN S5503
S5508
PERFORM DATA COMPRESSION BASED ON SETTING IN S5505
S5509
SEND DATA OF 2ND DATA COMPRESSOR TO HOST MEM COLOR BY COLOR
S5510
CAPACITY OF HOST MEM OK ?
YES
NO
B
S5511
STORE DATA OF S5505 AND S5509 IN HD
S5512
STORE SETTING OF 1ST DATA COMPRESSOR AND 1ST DATA DECOMPRESSOR IN COMMAND MEM
S5513
PERFORM RENDERING BASED ON SETTING IN S5502
S5514
PERFORM COLOR CONVERSION BASED ON SETTING IN S5503
S5515
PERFORM DATA COMPRESSION BASED ON SETTING IN S5512
S5516
SEND DATA OF 1ST DATA COMPRESSOR TO HOST MEM COLOR BY COLOR
S5517
CAPACITY OF HOST MEM OK ?
NO
YES
RESTORE DATA STORED IN S5511
S5518

FIG. 14

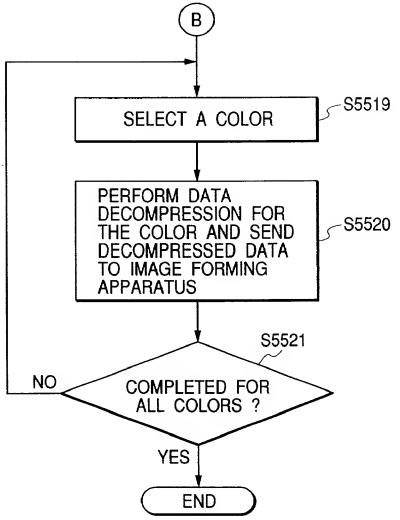

B
SELECT A COLOR
S5519
PERFORM DATA DECOMPRESSION FOR THE COLOR AND SEND DECOMPRESSED DATA TO IMAGE FORMING APPARATUS
S5520
S5521
NO
COMPLETED FOR ALL COLORS ?
YES
END

FIG. 15

MEMORY MAP OF MEM MEDIUM (FD/CD-ROM)

DIRECTORY
1ST DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIGS. 6 AND 7
2ND DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIGS. 13 AND 14

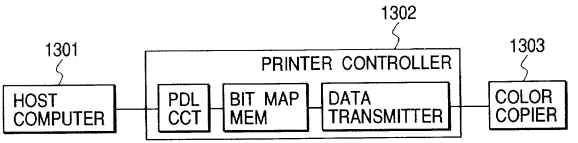



FIG. 16